

#E3

## SEQUENCE LISTING



&lt;110&gt; AVENTIS PHARMA SA

US GOVERNMENT of the UNITED STATES

<120> NUCLEIC ACID OF THE HUMAN ABCC11 GENE, VECTORS  
CONTAINING SUCH NUCLEIC ACID, AND USES THEREOF

&lt;130&gt; ABCC11 GENE

&lt;140&gt; ST01005

&lt;141&gt; 2002-03-05

&lt;150&gt; 60/272,757

&lt;151&gt; 2001-03-05

&lt;160&gt; 31

&lt;170&gt; PatentIn Ver. 2.1

&lt;210&gt; 1

&lt;211&gt; 4862

&lt;212&gt; DNA

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Ala Leu Gly Pro Glu Glu Gly Asn Ser Leu Gly Pro Glu Leu His  
515 520 525

Lys Ile Asn Leu Val Val Ser Lys Gly Met Met Leu Gly Val Cys Gly  
530 535 540

Asn Thr Gly Ser Gly Lys Ser Ser Leu Leu Ser Ala Ile Leu Glu Glu  
545 550 555 560

Met His Leu Leu Glu Gly Ser Val Gly Val Gln Gly Ser Leu Ala Tyr  
565 570 575

Val Pro Gln Gln Ala Trp Ile Val Ser Gly Asn Ile Arg Glu Asn Ile  
580 585 590

Leu Met Gly Gly Ala Tyr Asp Lys Ala Arg Tyr Leu Gln Val Leu His  
595 600 605

Cys Cys Ser Leu Asn Arg Asp Leu Glu Leu Leu Pro Phe Gly Asp Met  
610 615 620

Thr Glu Ile Gly Glu Arg Gly Leu Asn Leu Ser Gly Gly Gln Lys Gln  
625 630 635 640

Arg Ile Ser Leu Ala Arg Ala Val Tyr Ser Asp Arg Gln Ile Tyr Leu  
645 650 655

Leu Asp Asp Pro Leu Ser Ala Val Asp Ala His Val Gly Lys His Ile  
660 665 670

Phe Glu Glu Cys Ile Lys Lys Thr Leu Arg Gly Lys Thr Val Val Leu  
675 680 685

Val Thr His Gln Leu Gln Tyr Leu Glu Phe Cys Gly Gln Ile Ile Leu  
690 695 700

Leu Glu Asn Gly Lys Ile Cys Glu Asn Gly Thr His Ser Glu Leu Met  
705 710 715 720

Gln Lys Lys Gly Lys Tyr Ala Gln Leu Ile Gln Lys Met His Lys Glu  
725 730 735

Ala Thr Ser Asp Met Leu Gln Asp Thr Ala Lys Ile Ala Glu Lys Pro  
740 745 750

Lys Val Glu Ser Gln Ala Leu Ala Thr Ser Leu Glu Glu Ser Leu Asn  
755 760 765

Gly Asn Ala Val Pro Glu His Gln Leu Thr Gln Glu Glu Glu Met Glu  
770 775 780

Glu Gly Ser Leu Ser Trp Arg Val Tyr His His Tyr Ile Gln Ala Ala  
785 790 795 800

Gly Gly Tyr Met Val Ser Cys Ile Ile Phe Phe Phe Val Val Leu Ile  
805 810 815

Val Phe Leu Thr Ile Phe Ser Phe Trp Trp Leu Ser Tyr Trp Leu Glu  
820 825 830

Gln Gly Ser Gly Thr Asn Ser Ser Arg Glu Ser Asn Gly Thr Met Ala  
835 840 845

Asp Leu Gly Asn Ile Ala Asp Asn Pro Gln Leu Ser Phe Tyr Gln Leu  
850 855 860

Val Tyr Gly Leu Asn Ala Leu Leu Leu Ile Cys Val Gly Val Cys Ser  
865 870 875 880

Ser Gly Ile Phe Thr Lys Val Thr Arg Lys Ala Ser Thr Ala Leu His  
885 890 895

Asn Lys Leu Phe Asn Lys Val Phe Arg Cys Pro Met Ser Phe Phe Asp  
900 905 910

Thr Ile Pro Ile Gly Arg Leu Leu Asn Cys Phe Ala Gly Asp Leu Glu  
915 920 925

Gln Leu Asp Gln Leu Leu Pro Ile Phe Ser Glu Gln Phe Leu Val Leu  
930 935 940

Ser Leu Met Val Ile Ala Val Leu Leu Ile Val Ser Val Leu Ser Pro  
945 950 955 960

Tyr Ile Leu Leu Met Gly Ala Ile Ile Met Val Ile Cys Phe Ile Tyr  
965 970 975

Tyr Met Met Phe Lys Lys Ala Ile Gly Val Phe Lys Arg Leu Glu Asn  
980 985 990

Tyr Ser Arg Ser Pro Leu Phe Ser His Ile Leu Asn Ser Leu Gln Gly  
995 1000 1005

Leu Ser Ser Ile His Val Tyr Gly Lys Thr Glu Asp Phe Ile Ser Gln  
1010 1015 1020

Phe Lys Arg Leu Thr Asp Ala Gln Asn Asn Tyr Leu Leu Leu Phe Leu  
1025 1030 1035 1040

Ser Ser Thr Arg Trp Met Ala Leu Arg Leu Glu Ile Met Thr Asn Leu  
1045 1050 1055

Val Thr Leu Ala Val Ala Leu Phe Val Ala Phe Gly Ile Ser Ser Thr  
1060 1065 1070

Pro Tyr Ser Phe Lys Val Met Ala Val Asn Ile Val Leu Gln Leu Ala  
1075 1080 1085

Ser Ser Phe Gln Ala Thr Ala Arg Ile Gly Leu Glu Thr Glu Ala Gln  
1090 1095 1100

Phe Thr Ala Val Glu Arg Ile Leu Gln Tyr Met Lys Met Cys Val Ser  
1105 1110 1115 1120

Glu Ala Pro Leu His Met Glu Gly Thr Ser Cys Pro Gln Gly Trp Pro  
1125 1130 1135

Gln His Gly Glu Ile Ile Phe Gln Asp Tyr His Met Lys Tyr Arg Asp  
1140 1145 1150

Asn Thr Pro Thr Val Leu His Gly Ile Asn Leu Thr Ile Arg Gly His  
1155 1160 1165

Glu Val Val Gly Ile Val Gly Arg Thr Gly Ser Gly Lys Ser Ser Leu  
1170 1175 1180

Gly Met Ala Leu Phe Arg Leu Val Glu Pro Met Ala Gly Arg Ile Leu  
1185 1190 1195 1200

Ile Asp Gly Val Asp Ile Cys Ser Ile Gly Leu Glu Asp Leu Arg Ser  
1205 1210 1215

Lys Leu Ser Val Ile Pro Gln Asp Pro Val Leu Leu Ser Gly Thr Ile  
1220 1225 1230

Arg Phe Asn Leu Asp Pro Phe Asp Arg His Thr Asp Gln Gln Ile Trp  
1235 1240 1245

Asp Ala Leu Glu Arg Thr Phe Leu Thr Lys Ala Ile Ser Lys Phe Pro  
1250 1255 1260

Lys Lys Leu His Thr Asp Val Val Glu Asn Gly Gly Asn Phe Ser Val  
1265 1270 1275 1280

Gly Glu Arg Gln Leu Leu Cys Ile Ala Arg Ala Val Leu Arg Asn Ser  
1285 1290 1295

Lys Ile Ile Leu Ile Asp Glu Ala Thr Ala Ser Ile Asp Met Glu Thr  
1300 1305 1310

Asp Thr Leu Ile Gln Arg Thr Ile Arg Glu Ala Phe Gln Gly Cys Thr  
1315 1320 1325

Val Leu Val Ile Ala His Arg Val Thr Thr Val Leu Asn Cys Asp His  
1330 1335 1340

Ile Leu Val Met Gly Asn Gly Lys Val Val Glu Phe Asp Arg Pro Glu  
1345 1350 1355 1360

Val Leu Arg Lys Lys Pro Gly Ser Leu Phe Ala Ala Leu Met Ala Thr  
1365 1370 1375

Ala Thr Ser Ser Leu Arg  
1380